

INDEX TO VOL. LXXXIV. (A)

- Abney (Sir W. de W.) Colour-blindness and the Trichromatic Theory of Colour-vision. Part II.—Incomplete Red or Green Blindness, 449.
- Address of the President, November 30, 1910, 469.
- α -Particles, rate of emission of, from uranium and its products (Brown), 151.
- Andrade (E. N. da C.) On the Viscous Flow in Metals and Allied Phenomena, 1.
- Antarctic expedition, 1907, tidal observations of (Darwin), 403.
- Arc spectra, effect of pressure upon.—Silver and gold (Duffield), 118.
- Argon group, variation with temperature of viscosities of gases of the (Rankine), 181.
- Argon, helium, etc., refraction and dispersion of (Cuthbertson), 13.
- Armstrong (H. E.) and Eyre (J. V.) Studies of the Processes Operative in Solutions. XI. The Displacement of Salts from Solutions by Various Precipitants, 123.
- Aston (F. W.) The Distribution of Electric Force in the Crookes Dark Space, 526.
- Atmospheric oscillations (Lamb), 551.
- Ayrton (H.) The Origin and Growth of Ripple-mark, 285.
- Baker (H. F.) A Geometrical Proof of the Theorem of a Double Six of Straight Lines, 597.
- Baker (Sir B.) Obituary notice of, i.
- Balances, anomalous behaviour of delicate (Manley), 389.
- Berry (A. J.) See Soddy and Berry.
- β -particles, decrease of velocity of, on passing through matter (Wilson), 141.
- β -rays from a radioactive substance, distribution of velocity in (Gray), 136 ;
— scattering of, and number of electrons in atom (Crowther), 226.
- Bevan (P. V.) Dispersion of Light by Potassium Vapour, 209.
- Bohr (N.) On the Determination of the Tension of a recently formed Water-surface, 395.
- Brown (J. N.) Rate of Emission of α -Particles from Uranium and its Products, 151.
- Butler (C. P.) The Spectrum of Halley's Comet, 523.
- Callendar (H. L.) and Moss (H.) On the Absolute Expansion of Mercury, 595.
- Charcoal-gas system (Homfray), 99.
- Colour-blindness and the trichromatic theory. Part II. (Abney), 449.
- Crookes dark space, distribution of electric force in (Aston), 526.
- Crookes (Sir W.) On Scandium.—Part II, 79.
- Crowther (J. A.) On the Scattering of Homogeneous β -Rays and the Number of Electrons in the Atom, 226.
- Crystallisation, spontaneous, of mixtures of azobenzene and benzyaniline (Isaac), 344.
- Cuthbertson (C. and M.) The Refraction and Dispersion of Argon, and Redeterminations of the Dispersion of Helium, Neon, Krypton, and Xenon, 13.
- Darwin (Sir G. H.) The Tidal Observations of the British Antarctic Expedition, 1907, 403 ; — On a Mistake in the Instructions for the Use of a certain Apparatus in Tidal Reductions, 423.
- Double six of straight lines, proof of theorem of (Baker), 597.
- Duffield (W. G.) The Effect of Pressure upon Arc Spectra. No. 3.—Silver ; No. 4.—Gold, 118.
- Dyson (F. W.) On the Improbability of a Random Distribution of the Stars in Space 369.

- Electricity, positive, nature of carriers of, from heated aluminium phosphate (Horton), 433.
- Electron ejected by ultra-violet light, duration of motion of (Kleeman), 92.
- Electrons, number of, in the atom (Crowther), 226.
- End-standards of length, measurement of (Shaw), 589.
- Eustice (J.) Flow of Water in Curved Pipes, 107.
- Explosion, radiation in a gaseous (Hopkinson), 155.
- Eye, sensibility of, to variations of wave-length in yellow region (Rayleigh), 464.
- Flow of liquids, influence of viscosity on stability of (Mallock), 482 ; — of water in curved pipes (Eustice), 107.
- Functions, Sturm-Liouville series of normal (Mercer), 573.
- Gaseous explosion, radiation in (Hopkinson), 155.
- Gases, absorption of, by charcoal (Homfray), 99 ; — conditions necessary for discontinuous motion in (Taylor), 371.
- Geikie (Sir A.) Presidential Address, November 30, 1910, 469.
- Gifford (J. W.) Additional Refractive Indices of Quartz, Vitreous Silica, Calcite, and Fluorite, 193.
- Gore (G.) Obituary notice of, xxi.
- Graham (J. I.) The Absorption Spectra of Sulphur Vapour at Different Temperatures and Pressures and their Relation to the Molecular Complexity of this Element, 311.
- Gray (J. A.) The Distribution of Velocity in the β -Rays from a Radioactive Substance, 136.
- Gray (R. W.) and Ramsay (Sir W.) The Density of Niton ("Radium Emanation") and the Disintegration Theory, 536.
- Halley's comet, spectrum of (Butler), 523.
- Havelock (T. H.) The Wave-making Resistance of Ships : a Study of certain Series of Model Experiments, 197 ; — Optical Dispersion : an Analysis of its Actual Dependence upon Physical Conditions, 492.
- Heat, conduction of, through rarefied gases (Soddy and Berry), 576.
- Helium, liberation of, from minerals by action of heat (Wood), 70 ; — rate at which produced in thorinite and pitchblende (Strutt), 379.
- Homfray (I. F.) On the Absorption of Gases by Charcoal, 99.
- Hopkinson (B.) On Radiation in a Gaseous Explosion, 155.
- Horton (F.) A Spectroscopic Investigation of the Nature of the Carriers of Positive Electricity from Heated Aluminium Phosphate, 433.
- Ionisation produced by cathode rays ejected by X-rays (Kleeman), 16.
- Ions produced by Röntgen rays, effect of water vapour on velocities of (Lattey), 173.
- Isaac (F.) On the Spontaneous Crystallisation, etc., of Mixtures of Two Substances which form Mixed Crystals and possess a Minimum or Eutectic Freezing Point.— Mixtures of Azobenzene and Benzyaniline, 344.
- Kleeman (R. D.) The Total Ionisation produced in Different Gases by the Cathode Rays ejected by X-rays, 16 ; — On the Direction of Motion of an Electron ejected from an Atom by Ultra-violet Light, 92.
- Lamb (H.) On Atmospheric Oscillations, 551.
- Lattey (R. T.) The Effect of Small Traces of Water Vapour on the Velocities of Ions produced by Röntgen Rays in Air, 173.

Light, dispersion of, by potassium vapour (Bevan), 209 ; — incidence of, upon transparent sphere of dimensions comparable with the wave-length (Rayleigh), 25.
 Lockyer (Sir N.) On the Sequence of Chemical Forms in Stellar Spectra, 426.

Magnetic disturbances, terrestrial, at Greenwich, rotatory character and diurnal distribution (Sangster), 85.

Mallock (A.) The Damping of Sound by Frothy Liquids, 391 ; — Influence of Viscosity on the Stability of the Flow of Fluids, 482.

Manley (J. J.) Observations on the Anomalous Behaviour of Delicate Balances, and an Account of Devices for Increasing Accuracy in Weighings, 389.

Medallists 1910, 475.

Mendeléeff (D. I.) Obituary notice of, xvii.

Mercer (J.) Sturm-Liouville Series of Normal Functions in the Theory of Integral Equations, 573.

Mercury, absolute expansion of (Callendar and Moss), 595.

Metals, viscous flow in, and allied phenomena (Andrade), 1.

Moss (H.) See Callendar and Moss.

Newcomb (S.) Obituary notice of, xxxii.

Niton (radium emanation), density of, and disintegration theory (Gray and Ramsay), 536.

Obituary Notices of Fellows deceased :—

Baker (Sir B.), i.

Gore (G.), xxi.

Mendeléeff (D. I.), xvii.

Newcomb (S.), xxxii.

Routh (E. J.), xii.

Russell (W. J.), xxx.

Thomsen (J.), xxiii.

Optical dispersion, dependence upon physical conditions (Havelock), 492

Pearson (K.) On the Improbability of a Random Distribution of the Stars in Space, 47

Pitchblende, estimate of antiquity from rate of helium production (Strutt), 379.

Potassium vapour, dispersion of light by (Bevan), 209.

President, Address of, November 30, 1910, 469.

Radioactive substance, ratio of mass to weight for a (Southern), 325.

Radium content of basalt (Strutt), 377 ; — emanation, density of, and disintegration theory (Gray and Ramsay), 536.

Ramsay (Sir W.) See Gray and Ramsay.

Rankine (A. O.) On the Variation with Temperature of the Viscosities of the Gases of the Argon Group, 181.

Rayleigh (Lord). The Incidence of Light upon a Transparent Sphere of Dimensions comparable with the Wave-length, 25 ; — Aerial Plane Waves of Finite Amplitude, 247 ; — On the Sensibility of the Eye to Variations of Wave-length in the Yellow Region of the Spectrum, 464.

Refractive indices of quartz, silica, calcite, fluorite (Gifford), 193.

Ripple-mark, origin and growth of (Ayrton), 285.

Routh (E. J.) Obituary notice of, xii.

Russell (W. J.) Obituary notice of, xxx.

- Sangster (R. B.) On the Rotatory Character of some Terrestrial Magnetic Disturbances at Greenwich and on their Diurnal Distribution, 85.
- Scandium, Part II (Crookes), 79.
- Shaw (P. E.) The Measurement of End-Standards of Length, 589.
- Ships, wave-making resistance of (Havelock), 197.
- Soddy (F.) and Berry (A. J.) Conduction of Heat through Rarefied Gases.—II, 576.
- Solutions, studies of processes operative in. XI.—Displacement of salts by precipitants (Armstrong and Eyre), 123.
- Sound, damping of, by frothy liquids (Mallock), 391.
- Southerns (L.) A Determination of the Ratio of Mass to Weight for a Radioactive Substance, 325.
- Spectra, arc, of silver and gold, effect of pressure on (Duffield), 118.
- Spectra, stellar, sequence of chemical forms in (Lockyer), 426.
- Spectrum, sensibility of eye in yellow region of (Rayleigh), 464 ; — of Halley's Comet (Butler), 523.
- Stars in space, improbability of random distribution of (Pearson), 47 ; (Dyson) 369.
- Stellar spectra, sequence of chemical forms in (Lockyer), 426.
- Strutt (Hon. R. J.) On the Radium Content of Basalt, 377 ; — Measurements of the Rate at which Helium is produced in Thorianite and Pitchblende, with a Minimum Estimate of their Antiquity, 379.
- Sturm-Liouville series of normal functions (Mercer), 573.
- Sulphur vapour, absorption spectra of, and relation to molecular complexity (Graham), 311.
- Surface tension of water (Bohr), 395.
- Taylor (G. I.) The Conditions necessary for Discontinuous Motion in Gases, 371.
- Thomsen (J.) Obituary notice of, xxiii.
- Thorianite, estimate of antiquity from rate of helium production (Strutt), 379.
- Tidal observations of British Antarctic Expedition, 1907 (Darwin), 403 ; — reductions, mistake in instructions for use of certain apparatus (Darwin), 423.
- Trichromatic theory of colour-vision (Abney), 449.
- Uranium, rate of emission of α -particles from (Brown), 151.
- Viscosity, influence on flow of liquids (Mallock), 482.
- Voltmeter, electrostatic, for recording atmospheric potential (Walker), 585.
- Walker (G. W.) An Electrostatic Voltmeter for Photographic Recording of Atmospheric Potential, 585.
- Water-surface, determination of tension of (Bohr), 395.
- Wave-making resistance of ships (Havelock), 197.
- Waves, aerial plane, of finite amplitude (Rayleigh), 247.
- Weighings, devices for increasing accuracy in (Manley), 389.
- Wilson (W.) The Decrease of Velocity of the β -Particles on Passing through Matter, 141.
- Wood (D. O.) The Liberation of Helium from Minerals by the Action of Heat, 70.

END OF THE EIGHTY-FOURTH VOLUME (SERIES A).